

12

EUROPEAN PATENT APPLICATION

21 Application number: **89303122.9**

22 Date of filing: **30.03.89**

51 Int. Cl.4: **C 10 M 135/00**

C 10 M 141/10, C 10 M 163/00
/(C10M135/00,135:02,135:06,
135:10),(C10M141/10,129:95,
133:52,135:02,135:06,137:00,
137:10),(C10M163/00,129:95,
133:52,135:02,135:06,137:00,
137:10,159:16,159:20)

30 Priority: **31.03.88 US 175761 07.12.88 US 281262**
31.01.89 US 304772

43 Date of publication of application:
04.10.89 Bulletin 89/40

84 Designated Contracting States:
AT BE CH DE ES FR GB GR IT LI LU NL SE

88 Date of deferred publication of search report:
13.12.89 Bulletin 89/50

71 Applicant: **ETHYL PETROLEUM ADDITIVES, INC.**
20 South Fourth Street
St. Louis Missouri 63102-1886 (US)

72 Inventor: **Everett, Armgard Kohler**
2 Ridgeline
Warson Woods Missouri 63122 (US)

Perozzi, Edmund Frank
547 Apex Drive
Crestwood Missouri 63126 (US)

74 Representative: **Collier, Jeremy Austin Grey et al**
J.A.Kemp & Co. 14, South Square Gray's Inn
London WC1R 5EU (GB)

54 **Lubricating oil composition.**

57 Lubricant compositions comprising an oil of lubricating viscosity and a cosulfurized blend of (a) a carboxylic acid ester material and (b) an ester, amide, ester-amide or fatty amine derivative which contains at least one polar substituent group such as amino and hydroxyl.



EP 89 30 3122

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
X	EP-A-0 009 701 (RHEIN-CHEMIE RHEINBAU) * Page 2, line 21 - page 5, line 7; examples 2,4 * ---	1-2,9	C 10 M 135/00 C 10 M 141/10 C 10 M 163/00 //
A	EP-A-0 060 455 (BASF AG) * Page 2, line 32 - page 3, line 6; abstract; page 7, table 2 * ---	1,2,9	(C 10 M 135/00 C 10 M 135:02 C 10 M 135:06 C 10 M 135:10)
D,A	US-A-4 201 684 (R.E. MALEC) * Column 1, line 35 - column 2, line 32; column 3, line 29 - column 4, line 31 * ---	1,2,4,5 7,8,10	(C 10 M 141/10 C 10 M 129:95 C 10 M 133:52 C 10 M 135:02 C 10 M 135:06
A	DE-A-2 166 893 (RHEIN-CHEMIE RHEINBAU) * Page 1, lines 1-5; page 2, line 11 - page 3, line 4 * ---	1,2,9	C 10 M 137:00 C 10 M 137:10) (C 10 M 163/00 C 10 M 129:95 C 10 M 133:52
A	FR-A-2 009 296 (MOBIL OIL CORP.) * Page 1, lines 1-6; page 2, lines 4-10; page 3, line 34 - page 4, line 22; page 5, lines 12-15,37-38; page 6, lines 24-30; page 7, lines 19-25; page 8, lines 11-19; page 16, table I; examples 1,7 * ---	1,3,4	-/-
A	GB-A-2 023 169 (THE LUBRIZOL CORP.) * Page 1, lines 4-39; page 2, line 44 - page 3, line 7; page 4, lines 5-10; page 10, lines 13-18; page 19, lines 5-20; page 20, table II * ---	1,3-7	TECHNICAL FIELDS SEARCHED (Int. Cl.4) C 10 M
A	US-A-4 170 560 (W. LOWE) * Column 3, lines 4-40,51-66; column 4, line 43 - column 5, line 5; column 5, lines 30-53; column 6, lines 15-33 * -----	1-8,10	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 06-09-1989	Examiner HILGENGA K.J.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
			C 10 M 135:02 C 10 M 135:06 C 10 M 137:00 C 10 M 137:10 C 10 M 159:16 C 10 M 159:20 C 10 M 159:24) C 10 N 30:04 C 10 N 40:00 C 10 N 60:14
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 06-09-1989	Examiner HILGENGA K.J.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			